SECTION

5

WORKING WITH DATA

COLLECTING AND HANDLING DATA
Handling Data

INTRODUCTION

In this section, you will learn how to use your knowledge of correspondence to create and understand graphs that show how one thing changes over time. This skill will help you visualise data and identify patterns in real-life situations, like tracking the weather or measuring growth. Further, you will learn how to read and interpret double bar graphs, which compare two sets of data side by side. By understanding the title, labeled axes and key or legend, you'll be able to make sense of the data presented and use it to answer questions or solve problems. This will be useful in situations where you need to compare information, such as analysing survey results or comparing the performance of different groups.

> **In this section, you will learn to;**
>
> 1. Using understanding of correspondence to construct and interpret graphs of continuous data
> 2. Interpreting double bar graphs, complete with title, labelled axes, key or legend, to represent data collected (up to 3 pairs of categories of data and use it to solve problems).

ORGANISING AND PRESENTING QUANTITATIVE & QUALITATIVE DATA

Focal Area 1: Quantitative And Qualitative Data

Data is collected for various reasons and its interpretation is important for the purpose for which it is collected. They are organised by arranging responses systematically into understandable and simple form.

Collecting Data

If we visit any important places such as the palace, museum and Flag Staff House, we do so because we seek information of interest and importance. The answers we get on the reasons we visit such places are called data. So, we can describe data as the set of responses on a variable. Such data can be quantitative or qualitative. Quantitative data is data which can be counted or measured. Qualitative data is data which is not represented by numbers.

Example 1

Describe these data as quantitative or qualitative.

   a.   The types of food available during break

   b.   The ages of your friends

   c.   Which of your class mates are shorter than you?

   d.   Which new song is on social media?

   e.   Which teacher will conduct a test and the like?

In this section, we will focus on **Quantitative Data**

Quantitative data can be counted or measured.

Example 2

In each picture collect data by counting and by measuring.

Solution

Picture 1:

There are 4 pupils on the left and 3 on the right of the see-saw (counting)

The pupils on the left are heavier than those on the right (measuring)

Picture 2:

There are 7 blue, 6 yellow, 1 black and 2 red marbles on the playing board (counting)

The length of the playing board is longer than the width (measuring)

Example 3

Match the data to its appropriate mode of collection

A	B
a. Number of learners in the various class b. Length of my foot c. The weight of a tuber of yam d. Population of Ghana e. Volume of water in a bottle	Counting
	Measuring

Activity 5.1: Individual/Pair/Group Work

Exploring Qualitative and Quantitative Data

Purpose: Understand the difference between qualitative and quantitative data and categorise examples of data that can be measured and counted.

Materials Needed:

- Chart paper
- Markers
- Scissors
- Magazines/newspapers
- Ruler
- Stopwatch
- Small objects (like coins, buttons, or blocks)

Instructions:

1. **Introduction:** Begin by discussing the two types of data:

    - **Qualitative Data:** Data that describes qualities or characteristics (e.g., colour, texture, opinion).

- **Quantitative Data:** Data that can be counted or measured (e.g., number of books, height of a plant).

2. **Group Activity:** Put yourselves in small groups and choose any of the following tasks:

   - **Task 1: Qualitative Data**

      - Cut out pictures from magazines/newspapers that show different qualitative aspects (e.g., a red car, soft fabric, happy people).
      - Glue these pictures onto a chart and label them with the corresponding qualitative descriptions (e.g., red, soft, happy).

   - **Task 2: Quantitative Data (Measured)**

      - Measure the length of your desk or table using a ruler.
      - Use a stopwatch to time how long it takes for a classmate to walk across the classroom.
      - Record the measurements and times on a separate chart.

   - **Task 3: Quantitative Data (Counted)**

      - Count the number of buttons or coins in a small container.
      - Count how many students are wearing a specific colour.
      - Write down the counted numbers on the chart.

3. **Presentation:**

   - Each group should present their charts to the class, explaining the type of data they collected and whether it was qualitative or quantitative. For quantitative data, they will explain if the data was measured or counted.

4. **Class Discussion:**

   - Discuss why it's important to understand the difference between qualitative and quantitative data in real-life situations (e.g., in science, when shopping or while conducting surveys).

5. **Reflection:**

   - Reflect on the types of data collected and discuss how different kinds of data help us understand and describe the world around us.

Organisation of Data

Data is organised by arranging responses systematically into understandable and simple forms. Effective data organisation ensures that information is structured logically and coherently. We will use frequency distribution tables in organising our data. The frequency table has 3 columns as item/variable, tally and frequency.

Steps to organise data

With the help of the example below, let us follow the steps to organise given data

Example 1

To complete a game involving the use of a dice, 30 throws were made and the results recorded:

4, 5, 1, 3, 4, 2, 3, 2, 6, 4, 2, 6, 4, 3, 4, 5, 1, 6, 3, 5, 2, 4, 2, 3, 6, 5, 4, 4, 5, 6

Organise the data to make it easy to read at a glance.

Solution

We can organise the data by:

Step 1 – Identify the smallest and the biggest items

Smallest number = 1

Greatest number = 6

Step 2 – Draw a table of three columns and label

Step 3 – label the first column with the variable under discussion ("Number"), second column "Tally" and third column "Frequency"

Number	Tally	Frequency

Step 4 – Write the numbers from the smallest to the biggest in the first column

Step 5 – Use strokes to represent the individual items under the tally column

Step 6 – Represent the number of strokes to each item and record them under the frequency column

Step 7 – Write a title for the table

Fig: Frequency distribution table on numbers showing up in a game

Number	Tally	Frequency
1	\	2
2	\\	5
3	\\\	5
4	\\\\	8
5	⧽	5
6	⧽ \	5
Total		**30**

In summary, to organise a data on frequency distribution table;

Step 1 – Draw a table of three columns and label

Step 2 – label the first column with the variable under discussion ("number"), second column "Tally" and third column "Frequency"

Step 3 – Identify the smallest and the biggest items

Step 4 – Write the unique numbers from the smallest to the biggest under the first column

Step 5 – Use strokes to represent the individual items under the tally column

Step 6 – Represent the number of strokes to each item and record them under the frequency column

Step 7 – Write a title for the table

Example 2

Fifteen learners in Form 1were asked to state the subject they like best and the responses obtained were recorded as below. Organise the data into a frequency distribution table.

English, ICT, Mathematics, RME, ICT, ICT, Mathematics, Mathematics, ICT, English, English, English, RME, English, RME

Solution

We identify a particular variable under consideration (favourite subject) and the different elements in the data.

Draw a table of three columns and title them; favourite subject, tally and frequency

Complete the table with items and their corresponding frequencies

Fig: Frequency distribution table on subjects that learners prefer

Favourite Subject	Tally	Frequency
English	⦀⦀	5
Mathematics	⦀	3
RME	⦀	3
ICT	⦀	4
Total		**15**

We can easily see the subject which is highly preferred and the ones which are less preferred. The total can easily be told.

Activity 5.2: Individual/Pair/Group Work

Organising Data into a Frequency Distribution Table

Purpose: Learn how to organise data into a frequency distribution table to summarise and interpret data effectively.

Materials Needed:

- Paper
- Pencil
- Ruler
- Dice or a set of numbered cards (1-10)
- Chart paper or whiteboard for group work
- Markers

Instructions:

1.   **Introduction:**

   • Remind yourselves what a frequency distribution table is and why it is useful. Remember that it helps organise data into categories or groups to make it easier to understand patterns or trends.

2.   **Step 1: Collecting Data**

   • In small groups, roll a die or draw a card from a set numbered 1-10, 20 times.

   • After each roll or draw, each group should record the outcome in a list. This list will be your raw data.

3.   **Step 2: Organising Data**

   • Now that your group has a list of 20 numbers, organise this data into a frequency distribution table.

   • Create a table with two columns:

   • **Column 1:** "Number" (representing the numbers rolled or drawn)

   • **Column 2:** "Frequency" (representing how many times each number appeared)

4.   **Step 3: Filling in the Table**

   • In the "Number" column, list all the possible outcomes (numbers 1-10 from cards, or 1-6 from a die).

   • Count how many times each number appears in your data and write that number in the "Frequency" column next to the corresponding number.

   • For example, if the number 3 appeared 4 times in your list, you will write "3" in the "Number" column and "4" in the "Frequency" column.

5.   **Step 4: Group Discussion**

   • Once all the groups have completed their frequency tables, discuss your results:

   • Which numbers appeared most frequently?

   • Are there any numbers that did not appear at all?

   • How does organising data in this way help you see patterns more clearly?

6.   **Step 5: Display and Compare**

- Display your frequency tables on chart paper or the whiteboard.
- Compare the frequency tables across groups and discuss any similarities or differences in your data distributions.

7.   **Extension Activity (Optional):**

- Use the frequency distribution table to create a bar graph representing the data. Each bar will represent the frequency of a number, making it even easier to visualise the data.

Focal area 2: draw and interpret bar graphs

Representing data on graphs

When data is presented pictorially, it is easier to make meaning of the data involved. Some common graphs for representation of data include picture graphs, block graphs, pie charts, histograms, line graphs, etc. In this work, we will focus on bar graphs.

Key Features of a bar graph

- The bar graph has bars of equal width.
- It has equal intervals
- The height of bars is proportional to their frequencies: the taller the bar, the greater the frequency; the smaller the frequency, the shorter the bar.

We can observe graphs, describe and give our impression on them. The graph below is a bar chart showing distinct bars with horizontal and vertical axes. The title depicts what the graph is all about.

Age distribution of members in a compound house
■ Children ■ Adolescent ■ Adults
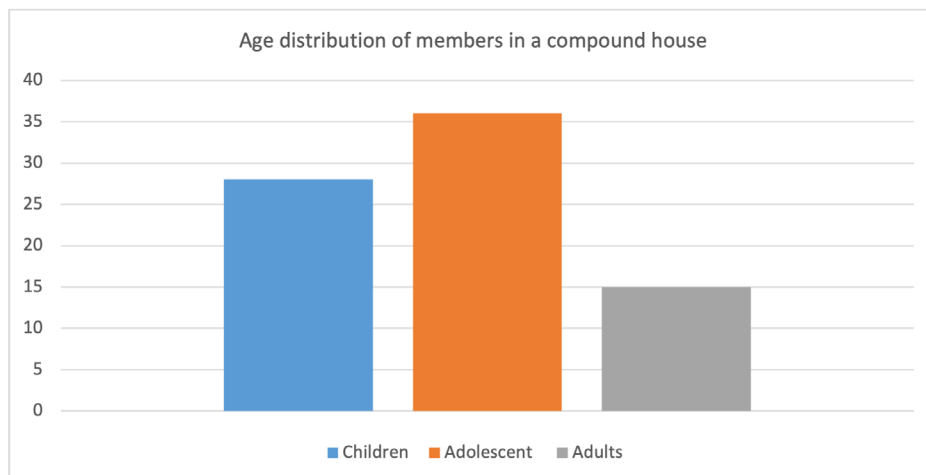
Steps to draw bar graph

To draw a bar graph for a data, we need to:

- **a.** identify the items in the data and their corresponding frequencies
- **b.** choose a scale that will be helpful in drawing the graph
- **c.** determine the size of the bars to be used and the spacing of the bars
- **d.** use ruler to draw bars for each item with height proportional to the frequency
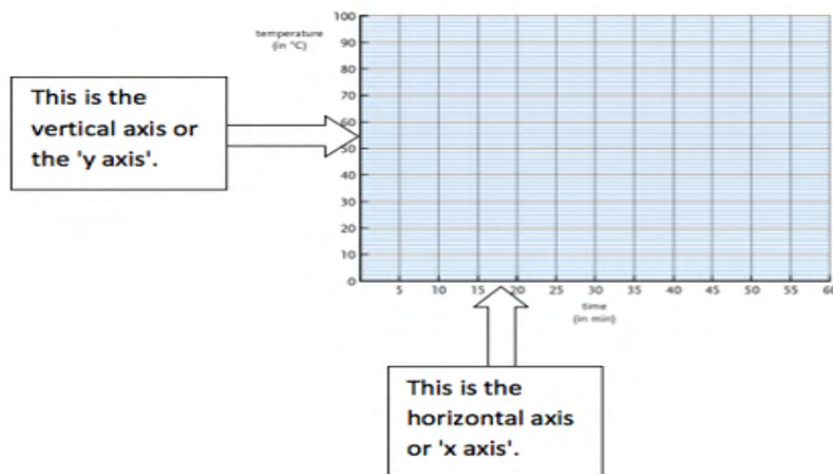- **e.** write a title for the graph

Example 1

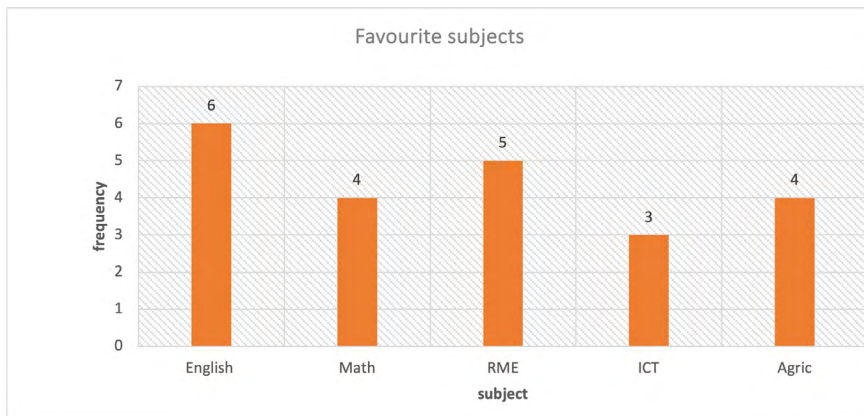Represent the number of learners and their favourite subjects on a bar chart.

Subject	Number of Learners
English	6
Mathematics	4
RME	5
ICT	3
Agriculture	4

Solution

We will draw a horizontal axis and a vertical axis on a graph and then label them

We will then draw bars with heights proportional to the frequencies.

Let's draw a multiple bar graph for depicting the relationship among two more varying items. Use bar charts to compare categories when you have at least one categorical or discrete variable.

Example 2

The table below shows the number of people who eat during break period. Draw a bar chart to illustrate the information

	First Break	Second Break
Learners	85	60
Teachers	25	45

Solution

In this case, we can compare number of learners and teachers who attend first break and then compare with the number who go for second break.

We draw a bar for number of learners and a bar for number of teachers for each break
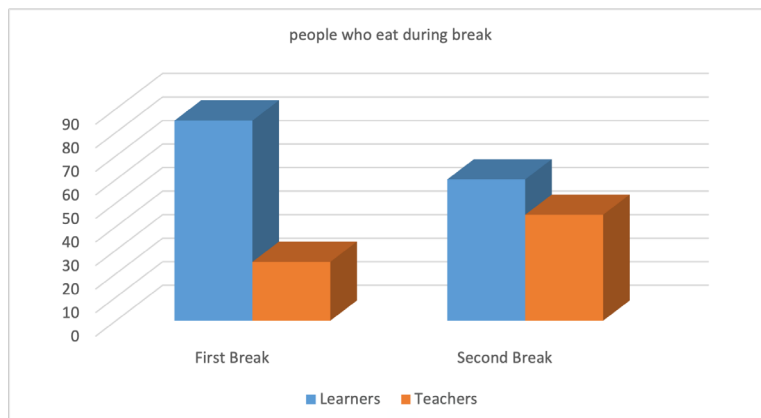
Activity 5.3: Individual/Pair/Group Work

Drawing Bar Graphs

Purpose: Learn how to create bar graphs to visually represent data and interpret the information accurately.images

Materials Needed:

- Graph paper
- Ruler
- Pencil
- Coloured pencils or markers
- Sample data set (provided by the teacher)
- Chart paper or whiteboard for group work

Instructions:

1. **Introduction:**

   - Enjoy a brief class discussion about bar graphs. Remember that bar graphs are used to represent data visually, with bars of different heights representing the quantities of each category.

2. **Step 1: Understanding the Data**

   - Your teacher will provide you with a simple data set. For example:

     - **Favorite Fruit of Students in the Class:**
       - Apples: 8
       - Bananas: 5
       - Oranges: 7
       - Grapes: 10
       - Strawberries: 6

   - Review the data making sure you understand what each number represents.

3. **Step 2: Setting Up the Graph**

   - On your graph paper, draw two perpendicular lines: the vertical axis (y-axis) and the horizontal axis (x-axis).
   - Label the horizontal axis with the categories from your data set (e.g., Apples, Bananas, Oranges, Grapes, Strawberries).

- Label the vertical axis with numbers representing the frequency or quantity (e.g., 1 to 10, depending on your data set).

4. **Step 3: Drawing the Bars**

- For each category, draw a bar that reaches up to the appropriate number on the vertical axis.
- For example, if 8 students like apples, draw a bar that reaches up to the number 8 on the y-axis, directly above the label "Apples" on the x-axis.
- Make sure the bars are evenly spaced and have the same width.

5. **Step 4: Adding Colour**

- Once all the bars are drawn, colour each bar a different colour. This will help to differentiate between the categories and make the graph more visually appealing.

6. **Step 5: Title and Labels**

- Add a title to your bar graph that describes what the graph is about (e.g., "Favorite Fruits of Students in the Class").
- Ensure that both axes are labeled correctly, with the x-axis showing the categories and the y-axis showing the quantity or frequency.

7. **Step 6: Group Activity**

- In groups, compare your bar graphs with others. Discuss:
- Which category had the highest frequency?
- Which had the lowest?
- How does the bar graph make it easier to understand the data?

8. **Step 7: Extension Activity (Optional)**

- Each group can create a bar graph based on data they collect themselves. For example, survey classmates on their favorite subjects, hobbies, or sports, then represent the data using a bar graph.

Interpreting data

Graphs give appropriate and simplified meaning to data and can be used to predict occurrences for future consideration. They are attractive and portray information at a glance. Other graphs possess detailed information when probed further.

Example 1

The bar chart below is on regional percentage distribution of cocoa production in Ghana.

Study and respond to the related problems.
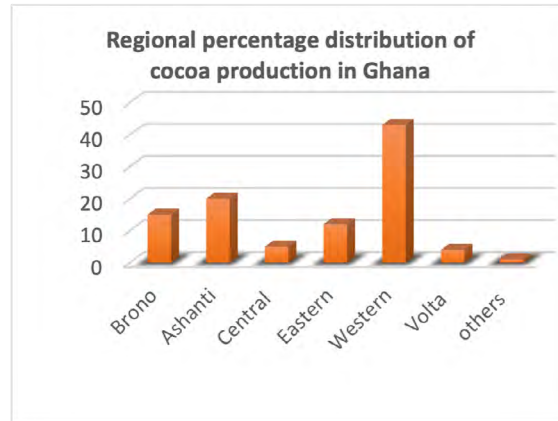
a. Which region produced the greatest percentage of cocoa in Ghana in that year?

b. Which regions formed "others"?

c. Which is the second largest cocoa producer in Ghana in that year?

d. If Western region produced 43% and Bono region produced 15 % of cocoa, what percentage of cocoa was produced by all other regions in Ghana?

e. Give a reason for the differences in Cocoa production in different regions in Ghana?

Solution

a. The region which produced the greatest percentage of cocoa was *Western* as it has the tallest bar.

b. Regions which formed "others" are all those not represented on the graph. In this case, *Greater Accra, Oti, Northern, East, Ahafo, Savannah, North East, Upper East, Upper West and Western North*

c. The second largest regional producer of cocoa in Ghana in that year was *Ashanti*

d. Production in Western and Brono = 43% +15 % = 58%

   Therefore, all other regions produced = 100 – 58% = **42%**

e. One reason can be that the different regions in Ghana have different soil types which might be better or worse for the cocoa.

Example 2

Study the bar chart on gender distribution in a school per class and answer the following questions.

GENDER DISTRIBUTION IN A SCHOOL
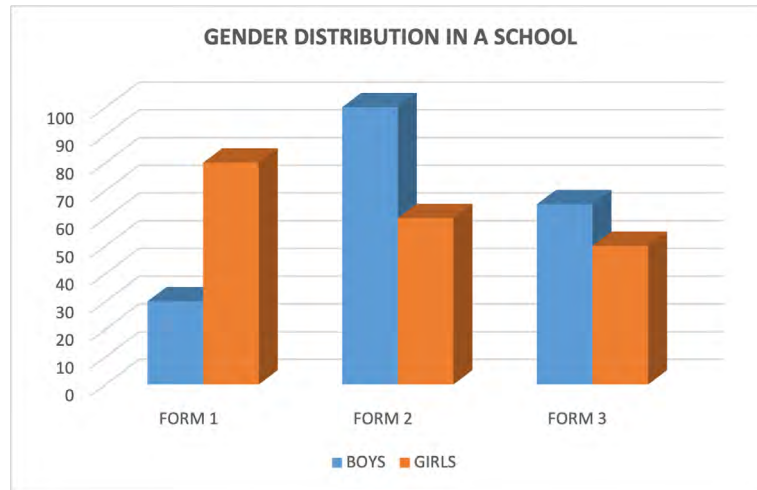
a. Which form had the highest number of girls?

b. What is the difference between the number of boys in form 3 and the girls in form 1?

c. How many girls are in the school?

d. How many learners are in the school?

e. If 2 learners sit on a desk, how many desks will be needed for all learners in the school?

Solution

a. Form 1 had the highest number of girls.

b. Boys in form 3 = 65, girls in form 1 = 80. Therefore, the difference is 80 – 65 = 15

c. Number of girls in the school:

80 + 60 + 50 = 190 girls

d. Number of learners in the school:

190 girls + 195 boys = 385 learners

e. Number of desks needed for all learners in the school:

Number of desks needed = Total student ÷ 2 = 385 ÷2 = 192.5

Therefore, Number of desks needed = 193 desks

Activity 5.4: Individual/Pair/Group Work

Interpreting Bar Graphs

Objective: Develop skills to accurately interpret and analyse data presented in bar graphs.

Materials Needed:

- Printed bar graphs (provided by the teacher)
- Worksheet with questions
- Pencil
- Ruler (optional)

Instructions:

1. **Introduction:**

   - Remind yourself of the purpose of bar graphs. They are to represent and compare quantities visually. Interpreting bar graphs involves understanding the information conveyed by the height or length of the bars.

2. **Step 1: Observe the Bar Graph**

   - You will receive a printed bar graph. Take a moment to carefully observe the graph. Look at:
   - The title: What is the graph about?
   - The labels on the x-axis and y-axis: What do they represent?
   - The scale on the y-axis: What is the range of values?

3. **Step 2: Analyse the Data**

   - Examine each bar on the graph. Ask yourself:

     - Which category has the tallest bar? What does this indicate?
     - Which category has the shortest bar? What does this indicate?
     - Are there any bars of the same height? What does this tell you?

4. **Step 3: Answer Questions**

   - Complete a worksheet with questions related to the bar graph. Here are some sample questions:

     1. What is the title of the bar graph?
     2. Which category has the highest value? How much is it?

   3. Which category has the lowest value? How much is it?

   4. How many categories have values greater than 10?

   5. If the bar for "Bananas" shows 8 and the bar for "Oranges" shows 5, how many more people preferred bananas over oranges?

   6. If another survey was conducted and the number of students who preferred "Apples" doubled, what would be the new value? How would the bar change?

   7. Based on the data, what conclusions can you draw**?**

5. **Step 4: Group Discussion**

   - Discuss your answers in small groups. Talk about:

     - Any patterns you noticed.

     - Surprising or interesting findings.

     - How the graph made it easier (or harder) to understand the data.

6. **Step 5: Real-Life Application (Optional)**

   - Think about situations where bar graphs are used in everyday life. For example, in comparing sales figures, survey results, or population statistics. Discuss how interpreting these graphs could be useful in making decisions.

1. By what means (**counting** or **measuring**) will you collect data on the following?
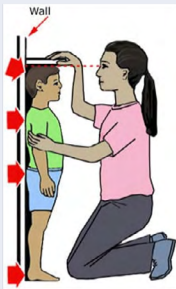
| A | B | C | D |

2. Learners of Form one selected coloured toffees (pebbles) from a bag of 20 toffees.

   Complete the frequency table for the choices of toffees.

Colour of toffee	Number of toffees
Blue 🔵	
Yellow 🟡	
Red 🔴	
Purple 🟣	
Green 🟢	

3. When data is organised, ……   *(Tick [√] the correct answer)*

   a.   some information gets lost from it   [ ]

   b.   the information is made simpler to read   [ ]

   c.   the information becomes more complicated   [ ]

4. The table below shows the subjects offered in a school and how it has been organised on the timetable. Use the information to answer the questions that follow.

Day	Subject
Monday	Maths, English, Social studies, RME
Tuesday	Maths, ICT, Economics, English, French
Wednesday	Science, Home Economics, Agriculture
Thursday	Maths, ICT, Economics, English, French
Friday	English, Social studies, ICT, Agriculture

a. On which days are more subjects taught?

b. Which subject is taught most in a week?

c. How many different subjects are taught in the school?

5. Draw a bar chart for the ages of 20 Form 1 learners in a certain school.

    15, 16, 18, 15, 15, 17, 16, 16, 15, 14, 15, 16, 16, 15, 17, 16, 18, 17, 16, 16

1.

Figure	Means
A	Measuring
B	Counting
C	Counting
D	Measuring

2.

Colour of toffee	Number of toffees
Blue	5
Yellow	3
Red	5
Purple	8
Green	4

3. the information is made simpler to read   [√]

4.   **a.**   On Tuesdays and Thursdays

   b.   English

   c.   10 subjects.

5.
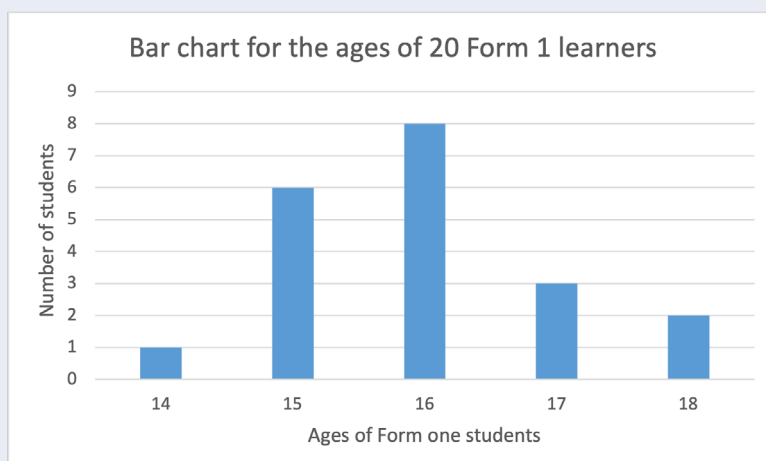
Bar chart for the ages of 20 Form 1 learners

Project 1: Exploring 2D Shapes, Prisms, and Perimeters in Real-Life Contexts

Objective:

In this project, you will identify and sort 2D shapes, recognise and describe prisms and pyramids, construct nets of these solids, measure and calculate perimeters, and explore how different shapes can share the same perimeter.

Part 1: Working with 2D Shapes and Solids

Task 1: Identifying and Sorting 2D Shapes

- Look at different 2D shapes such as squares, rectangles, triangles, and circles.
- Sort these shapes into groups based on their attributes (e.g., number of sides, angles).
- Explain why you grouped the shapes the way you did.

Task 2: Identifying Prisms and Pyramids in the Environment

- Identify examples of prisms and pyramids around you, such as a cereal box (rectangular prism) or a pyramid-shaped building.
- Describe the shapes and explain how you identified them as prisms or pyramids.

Task 3: Constructing Nets of Prisms and Pyramids

- Draw and cut out nets for a prism and a pyramid. For example, create a net for a rectangular prism or a triangular pyramid.
- Fold the nets to form the 3D shapes and ensure they match the solid figures.

Part 2: Measuring and Exploring Perimeters

Task 4: Measuring and Recording Perimeters

- Measure the perimeter of various regular and irregular shapes using a ruler or measuring tape. Record the measurements in centimetres (cm) or metres (m).
- Ensure you measure all sides of the shapes accurately and record the total perimeter.

Task 5: Developing and Applying a Formula for Perimeters

- Develop a formula for calculating the perimeter of different shapes. For example, the perimeter of a rectangle can be calculated as $P = 2 \times (l + w)$, where l is the length and w is the width.
- Apply this formula to calculate the perimeter of the shapes you measured in Task 4.

Task 6: Constructing Rectangles with the Same Perimeter

- Using your understanding of perimeters, construct different rectangles that all have the same perimeter (e.g., 20 cm).
- Explore how the shapes differ in appearance even though their perimeters are the same.

Materials Needed:

- Ruler or measuring tape
- Graph paper or plain paper
- Scissors and glue
- Coloured pencils or markers

Rubric for Assessment:

Criteria	Excellent (4)	Good (3)	Fair (2)	Needs Improvement (1)
Identifying and Sorting 2D Shapes	Accurately identifies and sorts all shapes	Mostly accurate with minor errors	Basic understanding with some errors	Incorrect or incomplete sorting
Identifying Prisms and Pyramids	Correctly identifies and describes all examples	Mostly accurate with minor errors	Basic identification with some errors	Incorrect or incomplete identification
Constructing Nets of Solids	Accurately constructs and folds nets for solids	Mostly accurate with minor errors	Basic construction with some errors	Incorrect or incomplete construction

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Criteria	Excellent (4)	Good (3)	Fair (2)	Needs Improvement (1)
Measuring and Recording Perimeters	Accurately measures and records perimeters	Mostly accurate with minor errors	Basic measurements with some errors	Incorrect or incomplete measurements
Developing and Applying Perimeter Formula	Correctly develops and applies formulas	Mostly accurate with minor errors	Basic understanding with some errors	Incorrect or incomplete application
Constructing Rectangles with Same Perimeter	Accurately constructs rectangles and explains differences	Mostly accurate with minor errors	Basic construction with some errors	Incorrect or incomplete construction

This project will help you understand the properties of 2D shapes, prisms, and pyramids, as well as develop skills in measuring and calculating perimeters in real-life contexts.

Project 2: Constructing and Interpreting Graphs of Continuous Data

Objective:

In this project, you will use your understanding of correspondence to construct and interpret graphs of continuous data. You will also interpret double bar graphs, complete with titles, labeled axes, and keys or legends, to represent data collected and use these graphs to solve real-world problems.

Part 1: Constructing and Interpreting Graphs of Continuous Data

Task 1: Collecting and Organising Data

- Choose a real-life situation that involves continuous data, such as recording daily temperatures (sunny, rainy, cloudy, etc.), measuring the heights of patients visiting a local hospital, or the growth of a plant over several weeks.
- Collect the data over a period of time and organise it into a table.

Task 2: Constructing a Graph

- Using graph paper, plot the data points on a graph. Make sure to:
- Label the *x*-axis (e.g., days, weeks) and the *y*-axis (e.g., temperature, height).
- Choose an appropriate scale for the axes based on the data.
- Plot the data points and connect them with a line to show the continuous nature of the data.

Task 3: Interpreting the Graph

- Analyse the graph and answer the following questions:
- What trends do you notice in the data (e.g., a steady increase, a fluctuation)?
- Are there any points where the trend changes significantly?
- What predictions can you make about future data points based on the graph?

Part 2: Interpreting Double Bar Graphs

Task 4: Creating a Double Bar Graph

- Collect data that can be compared across two categories, such as the performance of students in two different subjects (e.g., Maths and Science) or the number of books read by boys and girls in a class over a semester.
- Organise the data into a table with up to three pairs of categories (e.g., boys and girls, Maths and Science).

Task 5: Constructing the Double Bar Graph

- Using graph paper, create a double bar graph to represent the data. Ensure that:
- Each category is represented by a pair of bars (e.g., one bar for boys, one for girls).
- The graph includes a title, labeled axes, and a key or legend to differentiate between the categories.
- The bars are coloured or shaded differently for easy comparison.

Task 6: Interpreting the Double Bar Graph

- Analyse the double bar graph and answer the following questions:
- What differences do you observe between the two categories in each pair?
- Which category performed better or had higher values in each case?
- What conclusions can you draw from the comparison? How might this information be useful in real life?

Materials Needed:

- Graph paper
- Ruler
- Coloured pencils or markers
- Data collection tools (e.g., thermometer, measuring tape, or survey sheets)

Rubric for Assessment:

Criteria	Excellent (4)	Good (3)	Fair (2)	Needs Improvement (1)
Data Collection and Organisation	Accurately collects and organises data	Mostly accurate with minor errors	Basic understanding with some errors	Incorrect or incomplete data collection
Graph Construction	Accurately constructs graph with correct scale and labels	Mostly accurate with minor errors	Basic construction with some errors	Incorrect or incomplete construction

Criteria	Excellent (4)	Good (3)	Fair (2)	Needs Improvement (1)
Graph Interpretation	Thoroughly analyses graph and provides insightful answers	Mostly accurate with minor errors	Basic analysis with some errors	Incorrect or incomplete interpretation
Double Bar Graph Construction	Accurately constructs double bar graph with correct labels and legend	Mostly accurate with minor errors	Basic construction with some errors	Incorrect or incomplete construction
Double Bar Graph Interpretation	Provides clear and accurate interpretations of the data	Mostly accurate with minor errors	Basic interpretation with some errors	Incorrect or incomplete interpretation

This project will help you develop skills in collecting, organising, and interpreting continuous data, as well as comparing data using double bar graphs to solve real-life problems.

ACKNOWLEDGEMENTS